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09/761,558	01/16/2001	John M. Snyder	MSI-531US	5930

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EXAMINER

NGUYEN, PHU K

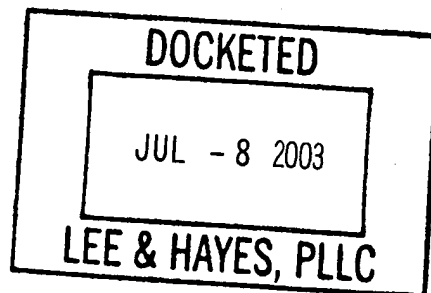
ART UNIT PAPER NUMBER

2671

DATE MAILED: 07/02/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.



1/20

**Office Action Summary**

Application No.

09/761,558

Applicant(s)

SNYDER ET AL.

Examiner

Phu K. Nguyen

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 January 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-73 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 10-11, 14-26, 31-32, 35-47, 52-53, 56-69 is/are rejected. *67 and 70-73 PV*
- 7) ☒ Claim(s) 6-9, 12, 13, 27-30, 33, 34, 48-51, 54, 55, 68 and 69 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received. *Shu-Hsin*
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, "two-dimensional histogram bins" (claim 68) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

2. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: "two-dimensional histogram bins" (claim 68).

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 65-67 are rejected under 35 U.S.C. 102(e) as being anticipated by XIONG (6,359,617).

As per claim 65, Xiong teaches the claimed "polar-capped map set" for use in computer generated graphics, comprising:

"a cylindrical projection map" (Xiong, col. 8, line 42); and

"at least one azimuthal projection map" (Xiong, col. 8, line 47).

Claim 66 adds into claim 65 "the polar-capped map is a stretch-invariant map" (Xiong, col. 8, line 40 – equidistance map).

Claim 67 adds into claim 65 "the polar-capped map is a conformal map" (Xiong, col. 8, line 46).

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-64, 70-73 are rejected under 35 U.S.C. 103(a) as being unpatentable over Xiong (6,359,617).

As per claim 1, Xiong teaches the claimed "method" comprising the steps of:

"providing a first texture map for a first portion of a 3D surface, the first texture map being associated with a first mapping technique" (Xiong, column 8, lines 1-17); and

"providing a second texture map for a second portion of the 3D surface, the second texture map being associated with a second mapping technique" (Xiong, col. 8, lines 1-17).

It is noted that Xiong does not explicitly teach that "the second mapping technique is different from the first mapping technique" as claimed. However, Xiong's different projections being able to be used for any two overlapping images (col. 8, lines 40-58) suggests that dependent upon the conditions of overlapping images, there could be different projection for different pairs of overlapping images. Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to configure Xiong's method as claimed because for different pairs of overlapping images there could use different projections (or the second mapping technique is different from the first mapping technique) to minimize the error.

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Claim 2 adds into claim 1 “cylindrical and azimuthal projections” which Xiong teaches in column 8, lines 40-55.

Claim 3 adds into claim 1 “a third portion wherein the third texture projection includes azimuthal projection information” which Xiong teaches in different (e.g., third) pairs of overlapping images (column 8, lines 40-55).

Claim 4 adds into claim 3 “plane-chart projection information” which Xiong teaches in col. 8, lines 42-45.

Claim 5 adds into claim 3 “equidistant projection information” which Xiong teaches in col. 8, line 50.

Claim 10 adds into claim 1 “Mercator projection and stereo graphic projection” which Xiong teaches in col. 8, lines 40-58.

Claim 11 adds into claim 10 “a third portion wherein the third texture projection includes azimuthal projection information” which Xiong teaches in different (e.g., third) pairs of overlapping images (column 8, lines 40-55).

Claim 14 adds into claim 3 “the cylindrical projection is from at least one type of cylindrical projections” which Xiong teaches in col. 8, lines 40-58.

Claim 15 adds into claim 3 “the azimuthal projection is from at least one type of azimuthal projections” which Xiong teaches in col. 8, lines 40-58.

Claim 16 adds into claim 3 “first portion is significantly adjacent to both the first and second portions such that the first portion separates the second and third portions” which Xiong suggests in the set of overlapping images (column 7, lines 9-15).

Claim 17 adds into claim 1 that "the 3D surface is curvilinear" which Xiong teaches in col. 8, lines 36-39.

Claim 18 adds into claim 1 that "the 3D surface is a spherical surface" which Xiong teaches in col. 8, lines 36-39.

Claim 19 adds into claim 1 "generations of the first and second texture map" which Xiong teaches in fig. 5, and col. 8, lines 40-55.

Claim 20 adds into claim 1 "a rectangular sampling matrix" which Xiong suggests in the bitmap images of figures 1a-1b in which the well known rectangular sampling is used.

Claim 21 adds into claim 1 "a hexagonal sampling matrix" which Xiong suggests in the bitmap images of figures 1a-1b in which the well known hexagonal sampling is used.

Claim 70 adds into claim 1 "analyze the texture map per at least one criterion to determine an appropriate texture resolution" which Xiong suggests in col. 4, line 64 to col. 5, line 4.

Claim 71 adds into claim 1 "analyze the texture map per at least one metric criterion to determine a requisite number of texture map" which Xiong suggests in col. 4, line 64 to col. 5, line 4.

Claims 22-26, 31-32, and 35-42 claim a computer-readable medium providing computer instructions suitable to perform the method of claims 1-5, 10-11, and 14-21, respectively; therefore, they are rejected under the same reason.

Claim 72 adds into claim 22 “analyze the texture map per at least one criterion to determine an appropriate texture resolution” which Xiong suggests in col. 4, line 64 to col. 5, line 4.

Claim 73 adds into claim 22 “analyze the texture map per at least one metric criterion to determine a requisite number of texture map” which Xiong suggests in col. 4, line 64 to col. 5, line 4.

Claims 43-47, 52-53, and 56-60, 63-64 claim an apparatus to perform the method of claims 1-5, 10-11, 14-18, 20-21, respectively; therefore, they are rejected under the same reason.

Claim 61 adds into claim 43 “analyze the texture map per at least one criterion to determine an appropriate texture resolution” which Xiong suggests in col. 4, line 64 to col. 5, line 4.

Claim 62 adds into claim 43 “analyze the texture map per at least one metric criterion to determine a requisite number of texture map” which Xiong suggests in col. 4, line 64 to col. 5, line 4.

Claims 6-9, 12-13, 27-30, 33-34, 48-51, and 54-55 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phu K. Nguyen whose telephone number is (703)305 - 9796. The examiner can normally be reached on M-F 8:00-4:30.

The fax phone numbers for the organization where this application or proceeding is assigned are (703)308-6606 for regular communications and (703)308-6606 for After Final communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-3800.

Phu K. Nguyen  
June 19, 2003

A handwritten signature in cursive script, appearing to read "Phu K. Nguyen", is written over a faint, circular official stamp.